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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/612,969 03/04/96 NUSSER D 1231-12

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EXAMINER

NGUYEN, A

ART UNIT

PAPER NUMBER

2854

21

DATE MAILED:

08/26/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/612,969

Applicant(s)

Dennis W. Nusser

Examiner

Anthony Nguyen

Group Art Unit

2854



☒ Responsive to communication(s) filed on Jun 22, 199

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-19, 21-25, 27, and 28 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-19, 21-25, 27, and 28 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-19, 21-25, 27 and 28 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Herzog et al. in view of Wang.

Herzog et al. teach an input apparatus having substantially the structure as claimed except for that the vertical and horizontal spacings between the keys are not stated. Note for example, Figs.1 and 2 of Herzog et al. teach a keyboard having a plurality of keys which generate input signals including a plurality of numerals and letters which are arranged in "QWERTY" and "DVORAK" layouts. Wang teaches an input apparatus having a plurality of keys in which a minimum center-to-center horizontal spacing in the range of 12-19 mm and a vertical spacing of 18-21 mm for the keys such as Shift, Control and Alter (Wang, the paragraph bridging cols.4 and 5 and col.5 second paragraph). Note that the spacing is obviously smaller for the alphanumeric keys 26-28 as shown in Fig.1 of Wang. Note also that the widths and depths of the keys of a standard keyboard is about 12 mm which is also in the range as claimed. In view of this teachings of Wang, it would have been obvious to one of ordinary skill in the art to modify the keyboard of Herzog et al. by providing the minimum center-to-center horizontal and vertical spacings

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between the input keys as taught by Wang for ease of typing. With respect to claims 1,21,22,23 and 27, the selection of a desired keystroke travel range involves only an obvious matter of design choice based upon obvious experimentation. This obviousness is evidenced by the fact that applicant recognizes that the conventional keystroke travel range is about 1.5-6 mm (the specification, page 10 lines 20-24). With respect to claims 6,14,18,23 and 25, the functions to be used in the input apparatus as recited are well known in the art as exemplified by Wang and Herzog et al.

Applicants' arguments filed on June 22,1999 have been fully considered but they are not persuasive of any error. Applicant argues that Wang, Herzog et al., and Klauber fail to teach the fixed key input apparatus as claimed. However, as explained above, Herzog et al. teach a keyboard including alpha-numeric keys which are arranged in "QWERTY" and "DVORAK" layouts. Wang teaches a keyboard including keys which generate input signals of numerals, letters and symbols as recited. The keys of Wang have minimum center-to-center horizontal and vertical spacings in the range as claimed. Note also that the recited horizontal and vertical spacings are also rendered obvious with respect to the horizontal and vertical spacings of a conventional keyboard. Thus, it is believed that the rejections are proper. There is no apparent unobviousness in the structure claimed relative to the structure of the prior art as applied.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

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A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Nguyen whose telephone number is (703) 308-2869 . The examiner can normally be reached daily from 9 AM to 5PM. The fax phone number for this Group is (703) 308-5841.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

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AH N
August 19, 1999

Ren Yan

REN YAN
PRIMARY EXAMINER